

Microgrit Aluminum Oxide, Alumina Series

Section 1: Chemical Product and Company Information

1.1 Product Identifier

Common Name: Microgrit Aluminum Oxide, Alumina Series

Trade Name: Microgrit A-17; Microgrit PXA; Microgrit A-13; Microgrit WA; Microgrit A; Microgrit WCA;

Microgrit PLP; Microgrit GB; Microgrit CR.3, Microgrit P 3; Microgrit DD; Microclear ECO; Microclear EC; Microclear ultra; Microclear; Microclear VP; Microclear 100.4; Microgrit EXP;

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against

Product Use: Lapping and polishing, wear-resistant coating.

Uses Advised Against: None identified

1.3 Details of the Supplier of the Substance or Mixture

Manufacturer/Supplier:

Micro Abrasives Corporation Micro Abrasives Europe GmbH

720 Southampton Road Ernst-Barlach-Weg 11 P.O. Box 669 D-25451 Quickborn

Westfield, MA 01085 Germany

Tel: 413-562-3641

Fax: 413-562-7409 Contact:
Holger Brandt

Phone: +49 (0)4106 626 98 55 Fax: +49(0)4106 626 98 56

1.4 Emergency Telephone Number

In United States, Canada, Puerto Rico, and the U.S. Virgin Islands: 1 (800) 255-3924 Outside the United States: +01 or +001 (813) 248-0585 (Call collect if necessary)

In China: (020) 84616908, Contact Person: Mr. Jacky Cheng

Email: <u>SDS@microgrit.com</u>
Website: http://www.microgrit.com

SDS Date of Preparation/Revision: January 9, 2017

Section 2: Hazards Identification

2.1 Classification of the Substance or Mixture

EU CLP Classification (1272/2008): Not classified as hazardous **EU Classification (1999/45/EC)**: Not classified as dangerous

GHS Classification: Not classified as dangerous

US OSHA Classification (29CFR1910.1200): Not classified as dangerous

Refer to Section 16 for Full Text of EU Classes and R Phrases

2.2 Label Elements:

Not Hazardous in accordance with the Globally Harmonized System for the Classification and Labeling of Chemicals (GHS)

Supplemental Labeling: Prolonged exposure to elevated noise levels during operations may affect hearing. A greater hazard, in most cases, is the exposure to the dust/fumes from the material or paint/coatings being processed. Most of the dust generated during abrasive processing is from the base material or coatings and the potential hazard from this exposure must be evaluated. This dust may present a fire or dust explosion hazard and may present a serious health hazard.

2.3 Other Hazards: None identified

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Section 3: Composition/Information on Ingredients

Component	CAS Number/ EINECS Number.	Amount	EU/GHS Classification (1272/2008)
Aluminum Oxide	1344-28-1 /	60-100%	Not dangerous /
	215-691-6		Not hazardous
	Reach Registration Number		
	01-2119529248-35-0063		

Refer to Section 16 for Full Text of EU/GHS Classes and R Phrases/H Statements if applicable

Section 4: First Aid Measures

4.1 Description of First Aid Measures

First Aid

Eyes: Remove contact lenses if present and easy to do. Flush eyes thoroughly with large amounts of water, holding eyelids open. If irritation persists, seek medical attention.

Skin: Wash skin with soap and water. If irritation or other symptoms develop, seek medical attention.

Ingestion: Do not induce vomiting. Rinse mouth with water. Seek medical attention if large amount is swallowed or if you feel unwell.

Inhalation: Move person to fresh air. If breathing is difficult, have qualified personnel administer oxygen. Seek medical attention if irritation or other symptoms persist.

See Section 11 for more detailed information on health effects.

- **4.2 Most Important symptoms and effects, both acute and delayed:** Dust may cause eye and respiratory irritation. Prolonged inhalation of high concentration of dust may cause adverse effects on the lungs. Exposure to dust generated from processing the base material or coatings may present additional health hazards.
- **4.3 Indication of any immediate medical attention and special treatment needed:** Immediate medical attention should not be required.

Section 5: Fire Fighting Measures

- **5.1 Extinguishing Media:** Use any media that is suitable for the surrounding fire. .
- **5.2 Special Hazards Arising from the Substance or Mixture:** This product is not flammable or combustible; however, consideration must be given to the potential fire/explosion hazards from the base material being processed. Many materials create flammable/explosive dusts or turnings when machined or ground.
- **5.3 Advice for Fire-Fighters:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires involving chemicals.

Section 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures: Wear appropriate respirator and protective clothing as needed to avoid eye contact and inhalation of dust.

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- **6.2 Environmental Precautions:** Avoid contamination of water supplies and environmental releases. Report spills as required to authorities.
- **6.3 Methods and Material for Containment and Cleaning Up:** Carefully collect dry material, avoiding the creation of airborne dust. Place in a suitable container for disposal.

6.4 Reference to Other Sections:

Refer to Section 13 for disposal information and Section 8 for protective equipment.

Section 7: Handling and Storage

7.1 Precautions for Safe Handling:

Avoid breathing dust. Use with adequate ventilation. Avoid contact with the eyes, skin and clothing. Wear suitable gloves, eye protection and appropriate protective clothing according to the operation. Wash thoroughly after handling. Consider potential exposure to components of the materials or coatings being processed. Refer to OSHA's substance specific standards for additional work practice requirements where applicable.

7.2 Conditions for Safe Storage, Including any Incompatibilities: No special storage required.

7.3 Specific end use(s):

Industrial uses: Abrasive

Professional uses: None identified

Section 8: Exposure Controls / Personal Protection

8.1 Control Parameters:

Chemical Name	US OEL	EU IOEL	UK OEL	German OEL	China OEL	Biological Limit Value
Aluminum Oxide	5 mg/m3 TWA (respirable), 15 mg/m3 TWA (total dust) OSHA PEL None Established ACGIH TLV	None Established	4 mg/m3 TWA (respirable dust) 10 mg/m3 TWA (inhalable dust)	1.5 mg/m3 TWA (respirable), 4 mg/m3 TWA (inhalable)	4 mg/m3 TWA	None Established

Note: Consider also components of base materials and coatings being processed.

DNEL:

Long term Oral Toxicity Long term Inhalation Toxicity

Aluminum oxide 6.2 mg/kg 15.6 mg/m3

PNEC: None established

DNEL (Derived No-Effect Level): A DNEL is the level of exposure to the substance below which no adverse effects are expected to occur. It is therefore the level of exposure to the substance above which humans should not be exposed. DNEL is a derived level of exposure because it is normally calculated on the basis of available dose descriptors from animal studies such as No Observed Adverse Effect Levels (NOAELs) or benchmark doses (BMDs). This value is derived under EU REACH when a chemical safety assessment is performed as part of registration.

PNEC (**Predicted No-Effect Concentration**): Concentration of the substance below which adverse effects in the environmental sphere of concern are not expected to occur. This value is derived under EU REACH when a chemical safety assessment is performed as part of registration.

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8.2 Exposure Controls:

Recommended Monitoring Procedures: None identified.

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Personal Protective Measurers

Respiratory Protection: Not necessary unless workplace concentrations of hazardous constituents exceed the exposure limits. If the exposure levels are excessive and irritation or other symptoms are experienced, an approved respirator should be worn. Respirator selection and use should be based on contaminant type, form and concentration. Follow OSHA 1910.134 and ANSI Z88.2 or other applicable regulations and standards and good Industrial Hygiene practice.

Eye Protection: Use safety glasses with side shields or goggles.

Skin Protection: Protective gloves recommended to avoid skin abrasion when handling. Wear protective clothing as

required to avoid skin contact when handling.

Other protection: Hearing protection recommended if operation is noisy.

Section 9: Physical and Chemical Properties

9.1 Information on basic Physical and Chemical Properties:

Appearance and Odor: White solid (powder or crystals), odorless.

Solubility in Water:	Insoluble	Boiling Point:	2977°C (5390.6°F)
Odor Threshold:	Not applicable	Partition Coefficient:	Not applicable
pH:	Not applicable	Melting Point:	2050 °C (3722°F)
Specific Gravity:	4.0	Vapor Density:	Not applicable
Evaporation Rate:	Not applicable	Vapor Pressure:	Not applicable
Flammability(solid/gas):	Not applicable	Flash Point:	Not applicable
Explosive Limits:	Not applicable	Autoignition	Not applicable
		Temperature:	
Decomposition	Not applicable	Viscosity:	Not applicable
Temperature:			
Explosive Properties:	None	Oxidizing Properties:	None

9.2 Other Information: None

Section 10: Stability and Reactivity

10.1 Reactivity: Not reactive under normal conditions of use and storage.

10.2 Chemical Stability: Stable.

10.3 Possibility of Hazardous Reactions: A slight rise in temperature may result from contact with water.

10.4 Conditions to Avoid: None known.

10.5 Incompatible Materials: None known.

10.6 Hazardous Decomposition Products: None known. Dust from abrasive processing could contain potentially hazardous components of the base material being processed or coatings applied to the base material.

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Section 11: Toxicological Information

11.1 Information on Toxicological Effects:

Potential Health Hazards

Inhalation: Breathing dust may cause irritation to the nose, throat and upper respiratory tract.

Skin Contact: May cause abrasive skin irritation.

Eye Contact: May cause abrasive irritation and injury.

Ingestion: Not toxic. Swallowing may cause gastrointestinal disturbances.

Chronic Health Effects: Prolonged inhalation of respirable dust may cause adverse lung effects.

Acute Toxicity Values:

Aluminum Oxide: Oral rat LD50 >10000 mg/kg; LC50 Inhalation rat >2.3 mg/L/4 hr

Skin corrosion/irritation: Aluminum oxide was not a skin irritant in animal studies. Skin contact may result in abrasive injury.

Eye damage/ irritation: Aluminum oxide was not an eye irritant in animal studies. Eye contact may result in abrasive irritation and injury.

Respiratory Irritation: No chemical irritation expected.

Skin Sensitization: Not expected to cause skin sensitization based on human experience.

Respiratory Sensitization: Not expected to be a respiratory sensitizer based on human experience.

Germ Cell Mutagenicity: None of the components have been shown to cause mutagenic activity.

Carcinogenicity: Aluminum oxide is not listed as a carcinogen or potential carcinogen by ACGIH, IARC, NTP, OSHA or the EU CLP.

Developmental / Reproductive Toxicity: No specific data is available; however, this product is not expected to present a risk of adverse reproductive or developmental toxicity.

Specific Target Organ Toxicity (Single Exposure): No specific data is available.

Specific Target Organ Toxicity (Repeated Exposure): Recent studies of alumina refinery employees indicate that current exposures to aluminum compounds are not associated with significant adverse respiratory effects. The small changes in pulmonary functions parameters and respiratory symptoms observed were likely due to exposure to irritants and were not considered clinically significant.

Section 12: Ecological Information

12.1 Toxicity:

Aluminum oxide: NOEC 96 hr Salmo trutta >100 mg/L; NOEC 48 hr daphnia magna >100 mg/L; NOEC 72 hr Selenastrum capricornutum >100 mg/L

12.2 Persistence and degradability: Biodegradation is not applicable to inorganic substances.

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12.3 Bioaccumulative Potential: No data available.

12.4 Mobility in Soil: No data available.

12.5 Results of PVT and vPvB assessment: None required.

12.6 Other Adverse Effects: None known.

Section 13: Disposal Considerations

13.1 Waste Treatment Methods:

Dispose in accordance with all local, state and national regulations. Local regulations may be more stringent than regional and national requirements. It is the responsibility of the waste generator to determine the toxicity and physical characteristics of the material to determine the proper waste identification and disposal in compliance with applicable regulations

Section 14: Transport Information

	14.1 UN	14.2 UN Proper Shipping Name	14.3	14.4	14.5
	Number		Hazard	Packing	Environmental
			Class(s)	Group	Hazards
US DOT	None	Not Regulated	None	None	
Canadian	None	Not Regulated	None	None	
TDG					
EU	None	Not Regulated	None	None	
ADR/RID					
IMDG	None	Not Regulated	None	None	
IATA/ICAO	None	Not Regulated	None	None	

14.6 Special Precautions for User: None identified

14.7 Transport in Bulk According to Annex II MARPOL 73/78 and the IBC Code: Not determined

Section 15: Regulatory Information

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture

INTERNATIONAL INVENTORIES

US EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory or exempt.

Australia: All of the components in this product are listed on the Australian Inventory of Chemical Substances (AICS) or exempt.

Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL) or exempt.

China: All of the components in this product are listed on the Inventory of Existing Chemical Substances in China (IECSC) or exempt.

European Union: All the components in this product are listed on the EINECS inventory or exempt.

Japan: All of the components in this product are listed on the Japanese Existing and New Chemical Substances (ENCS) inventory or exempt.

Korea: All of the components in this product are listed on the Korean Existing Chemicals List (KECL) or exempt.

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New Zealand: All of the components in this product are listed on the New Zealand Inventory of Chemicals (NZIoC) or exempt.

Philippines: All of the components of this product are listed on the Philippines Inventory of Chemicals and Chemical Substances (PICCS) or exempt.

Taiwan: All of the components of this product are listed on the National Existing Chemical Inventory (NECI) in Taiwan or exempt.

United States Regulations

EPA SARA Regulations:

SARA 311/312 Hazard Categories:

N – Fire Hazard

N – Sudden Release of Pressure

N – Reactivity

N - Acute Health

N – Chronic Health

SARA 313: This contains the following chemicals above deminimus concentrations subject to the notification or reporting requirements of SARA 313: None

CERCLA Section 103: This product is not subject to CERCLA release reporting. Many states have more stringent spill reporting requirements. Report spills in accordance will all applicable regulations.

RCRA Status: This product, as sold, is not regulated under RCRA as a hazardous waste.

State Requirements

California Proposition 65: This product contains the following chemical known to the State of California to cause cancer: None

Connecticut Carcinogen Substances: None listed.
Florida Essential Chemical List: None listed
Maine Chemicals of High Concern: None listed
Massachusetts Right To Know List: Aluminum oxide
Michigan Critical Materials List: None listed

Minnesota Hazardous Substances: Aluminum oxide

New Jersey Right To Know Hazardous Substances List: Aluminum oxide

New York List of Hazardous Substances: None listed Ohio Extremely Hazardous Substances List: None Listed Pennsylvania RTK Hazardous Substance: Aluminum oxide Rhode Island Hazardous Substances List: None listed Washington Persistent Bioaccumulative Toxins: None listed

Wyoming Process Safety Management - Highly Hazardous Chemicals: None listed

German Regulations

Substances Hazardous to Water (WGK): NWG

European Union

Regulation (EC) 1907/2006 REACH Article 59(1), Candidate List: None listed

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Section 16: Other Information

NFPA RATING (NFPA 704) FIRE: 0 HEALTH: 1 INSTABILITY: 0

HMIS RATING FIRE: 0 HEALTH: 1 PHYSICAL HAZARD: 0

EU and GHS Classes and Risk Phrases and Hazard Statements for Reference (See Sections 2 and 3):

None

SDS Revision History: Converted to GHS format. All sections revised.

SDS Date of Preparation: 03/02/15 Date of last revision: 03/02/15

This above information is believed to be correct but does not propose to be all inclusive and shall be used only as a guide. MicroAbrasives Corporation shall not be held liable for any damage resulting from handling or from contact with the above product. This information relates only to the product designated herein and does not relate to its use in combination with any other material or process.



According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and US GHS

Printing date: 25.02.2016 and US GHS Revision: 25.02.2016

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier Carborex C-6, Number 1 RF, RA, WSC, G-21, G21P, C-6 HBD, C-6 LBD, C-6 SK, FP 4,

FP 12, 54F, Crude

GHS Product Identifier Carborex C-6, Number 1 RF, RA, WSC, G-21, G21P, C-6 HBD, C-6 LBD, C-6 SK, FP 4,

FP 12, 54F, Crude

Chemical Name Mixture (Silicon Carbide)
Trade Name See Product Identifier

CAS No. 409-21-2 **EINECS No.** 206-991-8

REACH Registration No. 01-2119402892-42-0012

1.2 Relevant Identified Uses Of The Substance Or Mixture And Uses Advised Against

Identified Use(s) Consult the supplier.

Uses Advised Against Users are recommended to seek further advice.

1.3 Details Of The Supplier Of The Safety Data Sheet
Company Identification
Address
Washington Mills
1801 Buffalo Avenue

Niagara Falls, NY 14302

Telephone 1-800-828-1666

E-Mail (Competent Person) info@washingtonmills.com

REACH Registration Company Information

Company Identification WASHINGTON MILLS ELECTRO MINERALS LTD.

Address MOSLEY ROAD, TRAFFORD PARK

Postal Code/Location MANCHESTER M17 1NR, UNITED KINGDOM

Telephone 0044 (0)161 848 0271 Fax 0044 (0)161 872 2974

Further information obtained from:

Telephone + 0044 (0)161 873 5512

E-Mail (expert) <u>clive.wood@washingtonmills.co.uk</u>

1.4 Emergency Telephone Number – ChemTel

(800)255-3924 (USA/Canada), 813-248-0585 (International)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification Of The Substance Or Mixture

2.1.1 Classification according to Regulation (EC) No. 1272/2008 (CLP)

Classifications listed also are applicable to the OSHA GHS Hazard Communication Standard (29CFR1910.1200).

Hazard Pictogram(s)



GHS08 Health hazard

Carc. 1A H350: May cause cancer. Route of exposure: Inhalative.

Additional information:

Silicon carbide is not contributing to the hazard classification of the product. Quartz is the hazard determining component.

2.2 Label Elements

2.2.1 Label Elements According to Regulation (EC) No. 1272/2008 (CLP)

The product is additionally classified and labelled according to the Globally Harmonized System within the United States (GHS).

The substance is classified and labelled according to the CLP regulation.

Hazard Signal Word(s)

GHS08

GHS08

Signal Word(s)

Hazard-determining components of labelling: Quartz (SiO2)

Hazard H350: May cause cancer. Route of exposure: Inhalative.

Statement(s)

Precautionary P281: Use personal protective equipment as required.

Statement(s) P202: Do not handle until all safety precautions have been read and understood.

P308 + P313: IF exposed or concerned: Get medical advice/attention.

P501: Dispose of contents/containers in accordance with

According to 1907/2006/EC (REACH), 1272/2008/EC (CLP),

Printing date: 25.02.2016 and US GHS Revision: 25.02.2016

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local/regional/national/international regulations.

Additional

information Restricted to professional users.

Hazard description:

NFPA ratings (scale 0 - 4)



Health = 1 Fire = 0 Reactivity = 0

HMIS-ratings (scale 0 - 4)

HEALTH *1
FIRE 0
REACTIVITY 0

Health = *1 Fire = 0 Reactivity = 0 * - Indicates a long term health hazard from repeated or prolonged exposures.

HMIS Long Term Health

Hazard

14808-60-7 Quartz (SiO2)

Substances 2.3 Other Hazards

Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

CAS No. Description: 409-21-2 silicon carbide

Identification number(s) EC number: 206-991-8 Dangerous Components:

Hazardous Ingredient(s)	%W/W	CAS No.	EC No.	REACH Registration No.	Hazard Pictogram(s) and Hazard Statement(s)
Quartz (SiO2)	<0,5	14808-60-7	238-878-4	NA	3.6/1A H350

SECTION 4: FIRST AID MEASURES

4.1 Description of First Aid Measures

General Information: Take affected persons out into the fresh air.

After Inhalation: Provide oxygen treatment if affected person has difficulty breathing. Supply fresh

air; consult doctor in case of complaints.

After Skin Contact: Brush off loose particles from skin. If skin irritation is experienced, consult a doctor.

Wash with soap and water.

After Eye Contact: Remove contact lenses if worn. Rinse opened eye for several minutes under

running water. If symptoms persist, consult a doctor.

After Swallowing: Rinse out mouth and then drink plenty of water. Do not induce vomiting; call for

medical help immediately.

4.2 Most Important

Symptoms And Effects, Both Acute And Delayed Slight irritant effect on eyes. Slight irritant effect on skin and mucous membranes.

Breathing difficulty. Coughing.

Hazards May cause cancer. Route of exposure: Inhalative. Route of exposure: Inhalative.

4.3 Indication Of The Immediate Medical

> Attention And Special Treatment Needed

No further relevant information available.

Special No luttilei relevant information

Safety data sheet
According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and US GHS

Printing date: 25.02.2016 Carborex C-6, Number 1 RF, RA, WSC, G-21, G21P, C-6 HBD, C-6 LBD, C-6 SK, FP 4, FP 12, 54F, Crude (See Page 1)

SECTION 5: FIRE-FIGHTING MEASURES

5.1	Extinguishing Media	
	Suitable Extinguishing	Use fire extinguishing methods suitable to surrounding conditions.
	Media	
	Unsuitable Extinguishing	None.
	Media	
5.2	Special Hazards Arising	No further relevant information available.
	From The Substance Or	
	Mixture	
5.3	Advice for Fire-Fighters	Wear self-contained respiratory protective device. Wear fully protective suit.
	Additional Information	No further relevant information available.
	Auditional information	NO TUTTITET TETEVATIT ITHOTTTIALION AVAILABLE.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1	Personal Precautions,	Ensure adequate ventilation. Avoid formation of dust. For large spills,
	Protective Equipment And	use respiratory protective device against the effects of
	Emergency Procedures	fumes/dust/aerosol. For large spills, wear protective clothing.
6.2	Environmental Precautions	Do not allow to enter sewers/ surface or ground water.
6.3	Methods And Material For	Pick up mechanically. Dispose contaminated material as waste
	Containment And Cleaning Up	according to item 13. Send for recovery or disposal in suitable receptacles.
6.4	Reference To Other Sections	See Section 7 for information on safe handling.
		See Section 8 for information on personal protection equipment.
		See Section 13 for disposal information.

SECTION 7: HANDLING AND STORAGE

7.1	Precautions For Safe Handling	Prevent formation of dust. Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water. Any unavoidable deposit of dust must be regularly removed. Use only in well ventilated areas.
	Information About Fire – and explosion protection	No special measures required.
7.2		torage, Including Any Incompatibilities:
	Requirements to be Met by Storerooms and Receptacles:	No special requirements.
	Information About Storage in One Common Storage	Store away from oxidizing agents. Store away from foodstuffs.
	Facility: Further information about storage conditions:	None.
7.3	Specific End Use(s)	No further relevant information available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical facilities: No further data; see item 7. 8.1 Control Parameters							
Ingredients with lim	Ingredients with limit values that require monitoring at the workplace:						
Silicon carbide PEL (USA) Long-term value: 15*; 15** mg/m³ Fibrous dust: *total dust; ** respirable fraction							
	REL (USA) Long-term value: 10* 5** mg/m ³						

Revision: 25.02.2016

Safety data sheet
According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and US GHS

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			*Total dust **Respirable fraction
		TLV (USA)	Long-term value: 10* 3** mg/m³ Fibrous dust: 0,1 f/cc; nonfibrous: *inh., **resp.
		EL (Canada)	Long-term value: 10* 3** mg/m³ *inhalable; **respirable
		EV (Canada)	Long-term value: 10* 3** mg/m³, 0,1 f/cc*** ppm nonfibrous: *inh., **resp.; ***fibrous, resp.
		PEL (USA)	See Quartz listing
		REL (USA)	Long-term value: 0,05* mg/m³ *respirable dust; See Pocket Guide App. A
Quartz (SiO2)	14808-60-7	TLV (USA)	Long-term value: 0,025* mg/m³ *as respirable fraction
		EL (Canada)	Long-term value: 0,025 mg/m³ ACGIH A2; IARC 1
		EV (Canada)	Long-term value: 0,10* mg/m³ *respirable fraction

DNELs No further relevant information available. PNECs No further relevant information available.

Additional information: The lists valid during the making were used as basis.

8.2 Exposure Controls

Printing date: 25.02.2016

Personal protective equipment:

8.2	Exposure Contro	ols		
8.2.2	Personal Protective Equipment:			
	General protective and hygienic measures:	The usual precautionary measures are to be adhered to when handling chemicals. Immediately remove all soiled and contaminated clothing. Do not inhale dust / smoke / mist. Avoid contact with the eyes and skin. Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work.		
	Respiratory Protection	Use suitable respiratory protective device when high concentrations are present. For spills, respiratory protection may be advisable.		
	Eye Protection	Wear safety glasses.		
	Protection of Hands Wear protective gloves.			
	Body Protection	Not required under normal conditions of use. Protection may be required for spills.		
	Limitation and supervision of exposure into the environment			
	Risk No further relevant information available. See Section 7 for additional information. Measures			

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1	.1 Information On Basic Physical And Chemical Properties							
	Appearance	Granulate	Color	Black				
	Odor	Odorless	Odor Threshold (ppm)	Not available				
	Melting Point (°C) / Freezing Point (°C)	Not available	Boiling Point/Boiling Range (°C)	Not available				
	Flash Point (°C)	No Data	Explosive Limit Ranges	Not available				
	Auto Ignition	Not available	Decomposition Temperature (°C)	Not available				

Revision: 25.02.2016

According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), Printing date: 25.02.2016 and US GHS

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Temperature (°C) **Explosive Properties** Oxidizing Properties Not available None Flammability (Solid, Gas) Not available Ph (Value) Not available Not available **Evaporation Rate** N/A Vapor Pressure (mm Hg) Vapor Density (Air=1) 3.19 g/cm3 N/A Density (g/ml) Solubility (Water) Insoluble Solubility (Other) Not available Partition Coefficient (N-Not available Viscosity (mPa.s) Not available Octanol/Water)

Volatile Organic Chemical (VOC) Content - Not Available

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

9.2

Chemical Stability 10.2

Other Information

Thermal Decomposition / conditions No decomposition if used according to specifications.

to be avoided:

10.3 **Possibility of Hazardous Reactions** Reacts with strong alkali. Reacts with strong oxidising agents.

10.4 **Conditions To Avoid** No further relevant information available. 10.5 **Incompatible Materials** No further relevant information available.

10.6 **Hazardous Decomposition Product(s)** Possible in traces.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects

Acute toxicity:

Primary Irritant Effect:

On the skin: Slight irritant effect on skin and mucous membranes.

On the eye: Slight irritant effect on eyes. Sensitisation: No sensitizing effects known.

Additional toxicological

information:

May cause cancer. Route of exposure: Inhalative.

Acute effects (acute toxicity, Irritating if inhaled, causing symptoms of coughing and irritation, and corrosivity): shortness of breath.

May cause damage to organs through prolonged or repeated Repeated dose toxicity:

exposure. Repeated exposures may result in skin and/or

respiratory sensitivity.

CMR effects (carcinogenity,

mutagenicity, and toxicity for

reproduction):

Carc. 1A

SECTION 12: ECOLOGICAL INFORMATION

Toxicity No data

Aquatic toxicity: No further relevant information available. 12.2 Persistence and Degradability No further relevant information available. 12.3 **Bioaccumulative Potential** No further relevant information available. No further relevant information available.

12.4 **Mobility in Soil**

12.5

Additional ecological information:

General notes: Water hazard class 1 (German Regulation) (Self-assessment):

> slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Danger to drinking water if even small quantities

leak into the ground. Results of PBT and vPvB PBT: Not applicable.

Assessment vPvB: Not applicable.

Other Adverse Effects No further relevant information available. 12.6

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Revision: 25.02.2016

According to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and US GHS

Carborex C-6, Number 1 RF, RA, WSC, G-21, G21P, C-6 HBD, C-6 LBD, C-6 SK, FP 4, FP 12, 54F, Crude (See Page 1)

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Treatment Methods

Recommendation Must not be disposed together with household garbage. Do not allow

product to reach sewage system. Contact waste processors for recycling information. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes. Residual materials

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should be treated as hazardous.

Uncleaned Packaging:

Recommendation: Disposal must be made according to official regulations.

SECTION 14: TRANSPORT INFORMATION

Land Transport (ADR/RID)	(c)(d)	Land Transport (Within U	None Not classified as dangerous fo	
UN Number	None	UN Number	None	
Proper Shipping Name	Not classified as dangerous for transport.	Proper Shipping Name	Not classified as dangerous fo transport.	
Transport Hazard Class(es)	None	Transport Hazard Class(es)	None	
Packing Group	None	Packing Group	None	
Hazard Label(s)	None	Hazard Label(s)	None	
Environmental Hazards	None	Environmental Hazards	None	
Special Precautions For User	None	Special Precautions For User	None	
Sea Transport (IMDG) (c)		Air Transport (ICAO/IATA) (c) (d)	
UN Number	None	UN Number	None	
Proper Shipping Name	Not classified as dangerous for transport.	Proper Shipping Name	Not classified as dangerous fo transport.	
Transport Hazard Class(es)	None	Transport Hazard Class(es)	None	
Packing Group	None	Packing Group	None	
Marine Pollutant	None	Marine Pollutant	None	
Special Precautions For User	None	Special Precautions For User	None	

(b)- ORM-D may be applicable within the USA for package sizes less than 30kg.

(c)- Consult with transport provider.

(d)- Check relevant regulations for Special Provisions.

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health And Environmental Regulations/Legislation Specific For The Substance Or Mixture

USA

SARA

Section 355 (extremely hazardous Substance is not listed.

substances)

SARA 313 (Specific toxic chemical listings)

Substance is not listed.

TSCA (Toxic Substance Control Act)

Substance is listed.

Proposition 65 (California):

Chemicals known to cause cancer: 14808-60-7 Quartz (SiO2)
Chemicals known to cause reproductive Substance is not listed.

toxicity for females:

Chemicals known to cause reproductive Substance is not listed.

toxicity for males:

Chemicals known to cause developmental

Substance is not listed.

toxicity:

According to 1907/2006/EC (REACH), 1272/2008/EC (CLP),

Printing date: 25.02.2016 and US GHS Revision: 25.02.2016

	Carcinogenic Categories	HBD, C-6 LBD, C-6 SK, FP 4, FP 12, 54F, Crude (See Page 1)			
	EPA (Environmental Protection Agency)	Substance is not listed.			
	IARC (International Agency for Research on Cancer)	14808-60-7 Quartz (SiO2)	1		
	TLV (Threshold Limit Value established	409-21-2 silicon carbide	A2		
	by ACGIH)	14808-60-7 Quartz (SiO2)	A2		
	MAK (German Maximum Workplace	409-21-2 silicon carbide	2		
	Concentration)	14808-60-7 Quartz (SiO2)	1		
	NIOSH-Ca (National Institute for	14808-60-7 Quartz (SiO2)			
	Occupational Safety and Health)				
	Canada				
	Canadian Domestic Substances List (DSL)	Substance is listed.			
	Canadian Ingredient Disclosure list (limit 0.1%)	Substance is not listed.			
	Canada Ingredient Disclosure list (limit 1%)	Substance is not listed.			
İ	Other regulations, limitations and prohibitive regulations				
	Substances of very high concern (SVHC) according to REACH, Article 57	Substance is not listed.			

SECTION 16: OTHER INFORMATION

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

Additional information:

- The accumulation of airborne dust particles may lead to health and safety risks in some cases. The use of good industrial practices will mitigate this risk.
- The health risks from inhalation of dust particles vary; this is due to particle concentration, exposure length, number of exposures and type of particles inhaled. Please read Section 2,4,6,7 and 8 of the SDS to understand these potential risks. Wear personal protective equipment and follow storage and handling procedures to maintain a safe workplace.
- In rare instances, combustible dusts may represent a potential explosion hazard when airborne. This hazard is often associated with organic dust such as foodstuffs and coal, but may also occur with mineral products. While the majority of our products would be considered non-combustible, the overall airborne environment should be considered when determining the need for mitigation from the potential hazard. Consult recognized experts when necessary in order to determine any possible hazard.

Please read the SDS for specific information concerning these hazards, and contact us with any further questions. We appreciate your continued business.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

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IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstract Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

Sources

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573

Website: www.chemtelinc.com